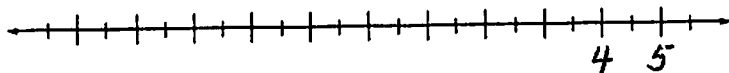


Name: _____ Group: _____ Date: _____

Accentuate the Negative Inv. 1 & 2 Quiz

- (5) 1. Construct a number line using the line below. Locate the numbers in parts (a)–(e) on your number line.



- a. $-\frac{3}{4}$ b. $2\frac{1}{2}$ c. -1.5 d. 0.8 e. opposite of -3

- (3) 2. Compare using $<$, $>$, or $=$ for each of the following:

a) $7 \square |-8|$

b) $|-10| \square |11|$

c) $|- \frac{1}{2}| \square |- \frac{3}{4}|$

- (4) 3. Solve each of the computation problems below.

a. $-15 - 7 =$

b. $15 + -7 =$

c. $-1.5 + -8.5 =$

d. $11 - 23 =$

- (6) 4. The table contains data for the temperature in Portland, Maine, during the month of January. Complete the table.

January Temperatures in Portland, Maine

Temperature At 8:00 A.M.	Temperature At 8:00 P.M.	Change in Temperature From 8:00 A.M. to 8 P.M.
-8°	3°	
-2°	-13°	
-13°		11°
-1°		15°
	-2°	-8°
	-5°	4°

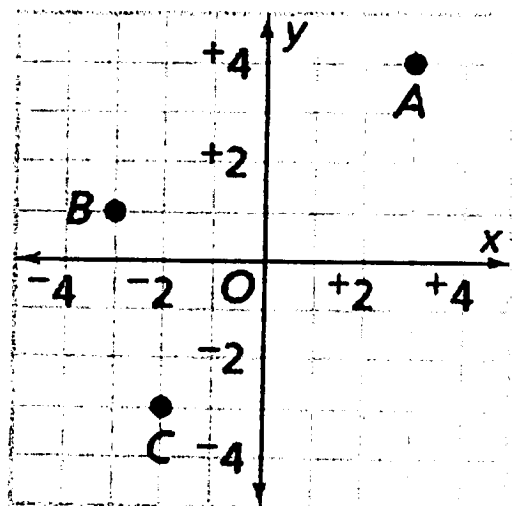
Name: _____ Group: _____ Date: _____

(1)

5. Cassidy wrote the equation $n + -11 = 24$. Using what you know about fact families, rewrite the equation so that Cassidy could figure out the value of n .

(3)

6. Plot and label (A' , B' , C') the opposite of each point on the graph.



(1)

7. Multiple Choice: Find the absolute value : $|-72|$

- a) $-\frac{1}{72}$ b) -72 c) 72 d) $\frac{1}{72}$

(1)

8. The high temperature is 20°C . The low temperature is -35°C . What temperature is halfway between the high and low?

Standard: Solves problems involving positive and negative numbers.

4	3.5	3	2.5	2	1.5	1
23-24	21-22	18-20	16-17	14-15	13	0-12

Point total _____

Performance Level _____

Parent Signature _____ Date _____

24 Points
Check-Up

4	3.5	3	2.5	2	1.5	1
23-24	21-22	19-20	17-18	15-16	13-14	0-12

use after Investigation

3

Accentuate the Negative

- ① A bakery bought 225 pounds of baking powder. It used 6.8 pounds per day. How much did the bakery have left after three days? Write number sentences to show your work. (2)

- ② Ray is in debt \$32 right now. He had owed more, but he has been paying \$6 a month on his debt for the last five months. (2)

a. How much was Ray in debt five months ago?

b. At his present rate, how much longer will it take Ray to pay off his debt? Explain your reasoning. (2)

Solve the problems. (rewrite subtraction as addition)

(8)

③ $7 - 10 =$

④ $-7 + 10 =$

⑤ $-12 - -11 =$

⑥ $11 - -8 =$

⑦ $\frac{-24}{-6} =$

⑧ $25 \times -6 =$

⑨ $-12 \times -5 =$

⑩ $-27 \div 3 =$

(4)

Tell whether each product is greater than or less than zero. (Examples 11-14)

⑪ $-1/2 \times -3/4 \times 4/9 \times -1/3$ _____

⑫ -3.2×100 _____

⑬ $-5 \times -5 \times -5 \times -5$ _____

⑭ $-1 \times -2 \times 3 \times 4$ _____

(2)

Fill integers to make a true sentence.

⑮ _____ \times _____ $= -30$

Write a number sentence to represent this situation.

Show your work.

- ⑯ The OMSports have a score of -450. They answer four 50 point questions incorrectly. (4)

Accentuate the Negative Quiz 4

Short Answer

1. (4 points) Find the answers to the following expressions.

a. $12 - 8 + 4 - 3$

b. $300 \div 10 \times 3$

2. (6 points) Fill in the missing parts to make the sentences true.

a. $8 \times (6 + 4) = (8 \times \underline{\quad}) + (8 \times 4)$

b. $7 \times (x + 3) = (7 \times \underline{\quad}) + (\underline{\quad} \times 3)$

c. $(-9 \times 5) + (\underline{\quad} \times 7) = -9 \times (\underline{\quad} + 7)$

d. $(x \times 4) + (x \times 5) = \underline{\quad} \times (4 + 5)$

e. $8x + 12x = x \times (\underline{\quad} + \underline{\quad})$

f. Which property is illustrated with examples 2a - 2e?

Multiple Choice

Identify the choice that best completes the statement or answers the question.

_____ 3. (1 point) $-45 + 23 \times 2 - 1 =$ _____

a. 43

b. -22

c. 0

d. 68

_____ 4. (1 point) Given the expression $6 \times (14 - 7)$, find the expression that is NOT equivalent.

a. $(14 - 7) \times 6$

c. $(6 \times 14) - (6 \times 7)$

b. 6×7

d. $(6 \times 14) + (6 \times 7)$

4	3	2	1
17-18	13-16	10-12	0-9

Point Total _____

Performance Level _____

Name: _____

ID: A

Simplify the expression.

- _____ 5. (1 point) $4^2 + (4 \cdot 2^3)$
a. 528 b. 48 c. 32 d. 160

Evaluate the expression for the given value.

- _____ 6. (1 point) $3x^3$ for $x = -3$
a. 729 b. -81 c. 81 d. -729

Find the sum.

- _____ 7. (1 point) $-10 + 1 + (-6)$
a. -15 b. -17 c. -3 d. 5

Find the product.

- _____ 8. (1 point) $-5(a + 2)$
a. $-5a - 3$ b. $-5a + 10$ c. $-5a + 2$ d. $-5a - 10$

Simplify the expression.

- _____ 9. (1 point) $6(6) + 6(4)$
a. 60 b. 10 c. 16 d. 12

- _____ 10. (1 point) $(10)9 - (10)11$
a. -2 b. -20 c. 200 d. 8

2006, Mathematics - Grade 7

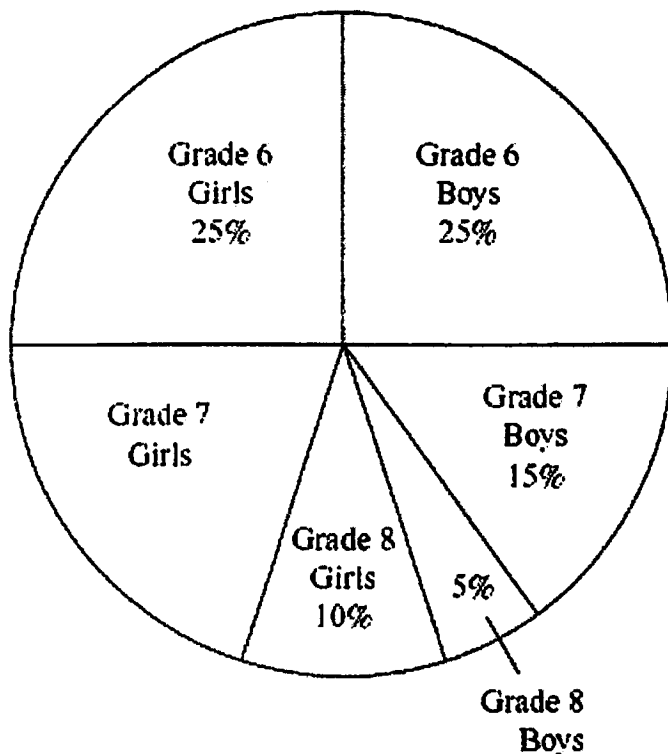
Question 29: Open-Response

Reporting Category: Data Analysis, Statistics, and Probability

Standard: 7.D.1

The circle graph below shows the student attendance at the Central Middle School Fall Festival.

**Central Middle School
Fall Festival Attendance**



- What percent of the students who attended the Fall Festival were grade 7 girls? Show or explain how you got your answer.
- What part of the students attending the Fall Festival were girls? Write your answer as a **fraction**. Show or explain how you got your answer.
- There were 32 grade 7 girls who attended the Fall Festival. What was the total number of students who attended the Fall Festival? Show or explain how you got your answer.

The highest point on North America is Mt. McKinley in Alaska. It is 6,194 meters above sea level. The lowest point in the U.S. is Death Valley. It is 86 meters below sea level. Complete a,b,c below.

- Make a sketch illustrating the change in elevation for the two locations.
- What is the change in elevation from the top of McKinley to the bottom of Death Valley? Show how you computed your answer.
- What is the change in elevation from the bottom of Death Valley to the top of McKinley? Show how you computed your answer.

Answer Section:

Standard 1: Solves problems in both mathematical and everyday contexts.

Score	
4	Correct answers.
3	Response demonstrates a general understanding of the problem. May have a minor calculation error.
2	Some part of the problem is correct and some part is incorrect.
1	Lacks the basic understanding of how to solve any part of the problem.
0	No Response.

Standard 2: Communicates mathematical thinking clearly and concisely.

Score	
4	Shows or explains steps in detail and answers the question, uses appropriate math vocabulary and is clearly organized.
3	Shows or explains some steps, uses some appropriate math vocabulary, indicates some organization.
2	Explanation is weak, organization is lacking, limited math vocabulary.
1	Explanation and/or organization is unrelated or missing.

Name: _____ # _____ Group: _____ Date: _____

Temperature Change

At 9:00 p.m. the temperature was -3°C . Between 9:00 p.m. and midnight the temperature dropped 6° . Between midnight and 10:00 a.m. the temperature rose 8° . By noon the temperature had dropped another 4 degrees.

- a. What was the temperature at noon in Celsius? Be sure to explain the process completely and show all your calculations.
- b. Give the noon temperature in degrees Fahrenheit, not degrees Celsius. (*Use this formula for conversion: $F = \frac{9}{5} C + 32$*). Be sure to explain the process completely and show all your calculations.

Answer Section:

Standard 1: Solves problems in both mathematical and everyday contexts.

Score	
4	Correct answers.
3	Response demonstrates a general understanding of the problem. May have a minor calculation error.
2	Some part of the problem is correct and some part is incorrect.
1	Lacks the basic understanding of how to solve any part of the problem.
0	No Response.

Standard 2: Communicates mathematical thinking clearly and concisely.

Score	
4	Shows or explains steps in detail and answers the question, uses appropriate math vocabulary and is clearly organized.
3	Shows or explains some steps, uses some appropriate math vocabulary, indicates some organization.
2	Explanation is weak, organization is lacking, limited math vocabulary.
1	Explanation and/or organization is unrelated or missing.

Name: _____ Number: _____ Group: _____ Date: _____

Integer Pattern



Alex made a table of values based upon the rules of a new operation. The table has 7 columns and 6 rows as shown below.

		Columns						
Rows		1	2	3	4	5	6	7
	1	-1	-3	-5	-7	-9	-11	
	2		0	-2	-4	-6	-8	
	3	7	5	3	1	-1	-3	
	4	14	12	10	8	6	4	
	5	23	21	19	17	15	13	
	6							

- Each row of the table contains a pattern of numbers where each number is 2 less than the previous number in the row. Based on the pattern, what number belongs in column 1 and row 2 of the table?
- Based on the pattern, what numbers belong in rows 1 through 5 in column 7 of the table?

Describe, in your own words, a rule that fits the pattern of numbers going down each column. Next, use the rule to determine the 7 numbers that belong in row 6 of the table.

Answer Section:

Standard 1: Solves problems in both mathematical and everyday contexts.

Score	
4	Correct answers.
3	Response demonstrates a general understanding of the problem. May have a minor calculation error.
2	Some part of the problem is correct and some part is incorrect.
1	Lacks the basic understanding of how to solve any part of the problem.
0	No Response.

Standard 2: Communicates mathematical thinking clearly and concisely.

Score	
4	Shows or explains steps in detail and answers the question, uses appropriate math vocabulary and is clearly organized.
3	Shows or explains some steps, uses some appropriate math vocabulary, indicates some organization.
2	Explanation is weak, organization is lacking, limited math vocabulary.

Accentuate the Negative Unit Test *modified*

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- _____ 1. (1 point) In which quadrant does the point $(-9, 7)$ lie?
 A. I B. II C. III D. IV
- _____ 2. (1 point) $-45 + 23 \times 2 - 1 =$ _____
 A. 43 B. -22 C. 0 D. 68
- _____ 3. (1 point) Given the expression $6 \times (14 - 7)$, find the expression that is NOT equivalent.
 A. $(6 \times 14) - 7$ C. $(6 \times 14) - (6 \times 7)$
 B. 6×7 D. $(6 \times 14) + (6 \times -7)$

Name the opposite of the integer.

- _____ 4. (1 point) -3
 A. $-\frac{1}{3}$ B. 3 C. -3 D. $\frac{1}{3}$

Compare. Use $<$, $=$, or $>$.

- _____ 5. (1 point) $|-14|$ ☒ $|10|$
 A. = B. < C. >
- _____ 6. (1 point) $|-10|$ ☒ $|11|$
 A. > B. = C. <

Simplify the expression.

- _____ 7. (1 point) $|-66 - 40|$
 A. 26 B. -26 C. -106 D. 106
- _____ 8. (1 point) Find the absolute value.
 $|-72|$
 A. $-\frac{1}{72}$ B. -72 C. 72 D. $\frac{1}{72}$

Standard: Solves problems involving positive and negative numbers.

4	3.5	3	2.5	2	1.5	1
46-49	42-45	38-41	34-37	30-33	26-29	0-25

sd.) 27-28

25-26

22-24

20-21

17-19

15-16

0-14

Point Total _____

Performance Level _____

Parent Signature _____ Date _____

Based on 28 pt

— ~~11~~ (1 point) Compare. Write $<$, $>$, or $=$.

$|11|$ ☒ $|-3|$

A. $>$

B. $<$

C. $=$

Find the product.

— 10. (1 point) $-7 \times (-5)$

A. -12

B. -2

C. -35

D. 35

Find the quotient.

— ~~11~~ (1 point) $8 \div (-4)$

A. -2

B. $\frac{1}{2}$

C. 2

D. $-\frac{1}{2}$

— 12. (1 point) $-16 \div (-8)$

A. $-\frac{1}{2}$

B. $\frac{1}{2}$

C. -2

D. 2

Find the value of the expression.

— 13. (1 point) $4 \times 3 + 30 \div 5$

A. 47

B. 8.4

C. 18

D. 26.4

Short Answer

Solve the problem.

14. (1 point) $-7 + -10$

15. (1 point) $-13 - -11 =$

~~16~~ (1 point) $\frac{-30}{-6} =$

17. (1 point) $20 \times -6 =$

~~18~~ (1 point) $-11 \times -5 =$

19. (1 point) $-24 \div 3 =$

20. (1 point) $150 + -24 =$

~~21~~ (1 point) $90 - -99 =$

Tell how far apart the two numbers are on a number line.

22. (1 point) -15 and $+20$

~~23~~ (1 point) -5 and -12

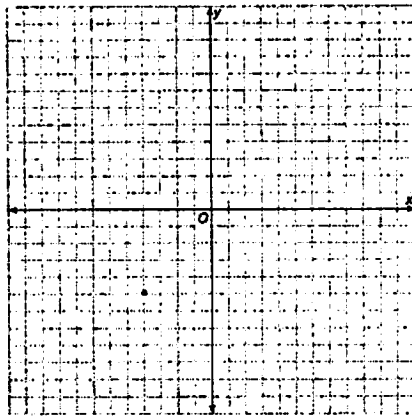
Insert Always, Sometimes, or Never to make a true statement.

24. (1 point) The sum of two negative integers is _____ negative.
25. (1 point) The product of two negative integers is _____ negative.
26. (1 point) The sum of a negative integer and a positive integer is _____ positive.
27. (1 point) The product of a negative integer and a positive integer is _____ negative.
28. (3 points) a. Below is a grid with four quadrants. Plot the following points, and connect them with line segments.

Point A $(-1, 0)$

Point B $(-3, 4)$

Point C $(-4, 0)$



- b. Without drawing, predict what will happen to ABC using the rule $(3x, -3y)$. Your explanation should include size and location.

29. (1 point) Write a number less than (-1000) .
30. (4 points) Use this information: Suppose you are in a building in which the floors are numbered from 0 to 15. The building has an underground parking garage with 10 levels, which are numbered from -1 to -10 . Which floor is *farther from* floor -2 ? (Drawing a picture may help you solve this problem.)
- a. floor 7 or floor -10
- b. floor 2 or floor -8

31. ² (3 points) Use the distributive property to write an expression equal to each of the following.

a. $-2 \cdot (-8 + 5)$

b. $(7 \cdot 2) - (7 \cdot 12)$

~~1~~ $x \cdot (9 + -5)$

Find two numbers that meet the given conditions.

32. (2 points) The middle number is -13 .
The distance between the two endpoint numbers on the number line is 30.

- ~~3~~ (2 points) The numbers are opposites.
The distance between the two numbers on the number line is 18.

34. ² (3 points) Find the answers to the following expressions.

~~1~~ $-5 \times 7 + 10 + 2 =$

b. $3 + -5 \times 4 - 2 =$

~~1~~ $(8 - 20) \div 2^2 - 5 \times -3 =$

d. $12 - 8 + 4 - 3 =$

- ~~3~~ (2 points) Four friends plan to go to a movie. They know it is \$5.00 for a ticket and \$3.00 for popcorn.
Using the distributive property, write two expressions to show how you could compute the total cost.
One expression should be in factored form and the other in expanded form.

- ~~3~~ (3 points) The list below gives monthly average low temperatures (in ° Fahrenheit) for International Falls, Minnesota from November through March.

17, 0, -9 , -3 , 10

a. What is the mean (average) of these monthly low temperatures? Show your work.

b. What is the difference between the highest and lowest temperatures (range)?